United States Department of Agriculture | Forest Service | Arizona Zone Entomology & Pathology | 2500 S. Pineknoll Dr. Flagstaff, AZ 86001

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Route To:

Subject: 1997 Insect and Disease Aerial Detection Survey

To: Area Director
Bureau of Indian Affairs
Phoenix Area Office
P. O. Box 10
Phoenix, AZ 85001

The annual insect and disease aerial detection survey was conducted over the Ft. Apache Indian Reservation August 19-22 and September 23, 1997. Enclosed you will find a copy of the map depicting the insect conditions on the Reservation.

A decrease in bark beetle activity was mapped in 1997 (8,499 acres) compared to 1996 (15,015 acres). A majority of the mortality is still located on the eastern half of the Reservation, with largest concentration of mortality in an area southeast of White River which extends eastward to Tonto Lake and south toward Poker Mountain. Mortality is being attributed to Ips spp, rounheaded pine beetle and western pine beetle. In 1996, Jill Wilson of this office discovered that mortality was generally due to all three of the bark beetles commonly found in ponderosa pine. Mortality occurred in pockets of 20 trees and up to 400 or more scatterd trees.

Douglas-fir and true fir mortality appeared to be higher this year. Douglas-fir beetle mortality was recorded on 533 acres and true fir mortality on 243 acres.

Aspen defoliation was moderate to heavy on a total of 460 acres this year. None had been reported in 1996.

Defoliation of low elevation spruce continued in the winter of 1996-1997. The causal agent has been identified as the spruce aphid, Elatobium abietinum. A total of 16,165 acres was affected by this insect. Jill Wilson of Forestry and Forest Health and Ann Lynch of the Rocky Mountain Research Station are working on this issue. An early arial detection survey was done in May to determine whether defoliation from spruce aphid could be seen from the air. Acreages were mapped and this information used to delineate areas to take aerial color infrared photography and locate ground survey points. This effort will continue into the 1998 calendar year.

If you have any questions regarding this survey, please contact Steve Dudley or me at (520) 556-2072.

acting for

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